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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/920,296	08/02/2001	Akira Shibata	1883-41	3894
23117	7590	11/30/2005	EXAMINER	
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			VAN HANDEL, MICHAEL P	
			ART UNIT	PAPER NUMBER
			2617	

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/920,296	SHIBATA ET AL.	
	Examiner	Art Unit	
	Michael Van Handel	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 8-23 is/are rejected.
- 7) ☒ Claim(s) 5 and 7 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/02/2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Allowable Subject Matter

1. Claim **5** and **7** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "plurality of modulators for respectively modulating an output of a corresponding one of the receiver sections" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

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pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Response to Amendment

1. This action is responsive to an Amendment filed 10/17/2005. Claims **1-23** are pending. Claims **1-7** are amended. Claims **8-23** are new.

Response to Arguments

1. Applicant's arguments filed 10/17/2005 with respect to claim **1-23** have been fully considered, but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim **1** is rejected under 35 U.S.C. 102(b) as being anticipated by Hamlin.

Referring to claim **1**, Hamlin discloses a broadcast signal receiving system comprising a retransmission device (converter) for collectively receiving a plurality of high-frequency signals of different broadcast signaling systems and converting the received signals into high-frequency signals of a common signaling system (col. 3, l. 3-9)(Figs. 1, 2), and a plurality of display

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devices 46 for receiving the high-frequency signals transmitted from the retransmission device and displaying contents of the received signals (col. 3, l. 13-18).

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims **8, 9, 12-15** are rejected under 35 U.S.C. 102(e) as being anticipated by Eyer et al.

Referring to claim **8**, Eyer et al. discloses a retransmission apparatus comprising:

- a plurality of receiver sections 120, 130, 140 each of which receives a broadcast signal of a different broadcast system (Fig. 1);
- a signal selector for selecting outputs of one or more of the receiver sections (col. 10, l. 16-28);
- a converter section 260, 265 for converting the selected receiver section outputs into signals of a common signaling system (Fig. 2); and
- a transmitter section 270 for transmitting the common signaling system signals (col. 7, l. 43-45).

Referring to claim **9**, Eyer et al. discloses the retransmission apparatus as defined in claim **8**, wherein the plurality of receiver sections receive broadcast signals of one or more of the following broadcast systems: terrestrial, cable and satellite (Fig. 1).

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Referring to claim 12, Eyer et al. discloses the retransmission apparatus as defined in claim 8, further comprising: a selection signal receiver 185 for receiving selection signals for selecting the outputs of the one or more of the receiver stations (col. 8, l. 26-29).

Referring to claim 13, Eyer et al. discloses the retransmission apparatus as defined in claim 12, wherein the selection signals specify a broadcast system (col. 10, l. 16-28).

Referring to claim 14, Eyer et al. discloses the retransmission apparatus as defined in claim 13, wherein the selection signals further specify one or both of a channel (col. 7, l. 19-23) and a volume level. The USPTO considers the applicant's "at least one of" language to be anticipated by any reference containing any of the subsequent corresponding elements.

Referring to claim 15, Eyer et al. discloses the retransmission apparatus as defined in claim 12, where in the selection signal receiver comprises a wireless selection signal receiver (col. 8, l. 29-31).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hylton et al. in view of Hamlin.

Referring to claim 1, Hylton et al. discloses a broadcast signal receiving system (system for supplying broadband signals from a digital network to a number of set-top boxes and

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associated televisions)(Fig. 1) comprising a retransmission device 10 (shared processing system) collectively receiving a plurality of high-frequency signals 5 (digital network) and converting the received signals into high-frequency signals of a common signaling system (col. 4, l. 57-64)(col. 5, l. 12-15, 33-41, 58-67)(col. 6, l. 1-33)(Fig. 1), and a plurality of display devices 100 (terminals) for receiving the high-frequency signals transmitted from the retransmission device 10 and displaying contents of the received signals (col. 8, l. 6-10)(Fig. 1). Hylton et al. does not disclose that the received signals be a plurality of high-frequency signals of different broadcast signaling systems. Hamlin discloses receiving distinct input media signals of various signal types and converting them to a common format (col. 3, l. 3-9, 24-36)(Fig. 2). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify Hylton et al. to include receiving various signal types and converting them to a common format such as that taught by Hamlin in order to provide a system that enables all the received communication signals to be distributed to various locations within a structure without having to provide special reception equipment at each specific location (col. 1, l. 56-60).

8. Claims **2-4, 8, 10-12, 15, 17-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hylton et al. in view of Hamlin and further in view of Eyer et al.

Referring to claims **2, 8, 11, 12, and 19**, the combination of Hylton et al. and Hamlin teaches a broadcast signal receiving system, wherein the retransmission device is provided with a plurality of a broadcast receiving means (demodulator/protocol converters) for receiving and demodulating the plurality of high-frequency signals of different broadcast signaling systems, and converting the received signals into a plurality of different baseband signals (Hamlin col. 3,

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l. 28-30), a parallel-to-serial converting means (Hylton et al. multiplexer 15) for inputting in parallel the baseband signals, rearranging the inputted signals into serial signals and outputting the serial signals (Hylton et al. col. 6, l. 8-17)(Hylton et al. col. 9, l. 3-6)(Hylton et al. col. 10, l. 49-60)(Hylton et al. col. 11, l. 58-64)(Hylton et al. col. 12, l. 58-62)(Hylton et al. Fig. 1), and a common signal transmitting means 17, 27 (modulator and antenna) for converting the baseband signals from the parallel-to-serial converting means 15 into high-frequency signals of the common signaling system and transmitting the converted signals (Hylton et al. col. 6, l. 18-33), where each of the plurality of display devices 100 is provided with a common signal receiving means 29, 101, 102 (antenna, Transport Interface Module (TIM), and Digital Entertainment Terminal (DET)) for receiving the high-frequency signals of the common signaling system and a display means 103 for displaying the broadcast contents of the received signals from the common signal receiving means 29, 101, 102 (Hylton et al. col. 8, l. 6-10)(Fig. 1). Hylton et al. further discloses channel and program selectors 11, 13 for selecting one of the programs received from a network (col. 5, l. 58-67)(col. 6, l. 1-4). Neither Hamlin nor Hylton et al. disclose a signal selecting means for selecting one or plural baseband signals from a plurality of different baseband signals. Eyer et al. discloses a decoder 110, which activates a tuner/demodulator to retrieve a desired signal in response to a user control signal (col. 10, l. 16-28). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the channel and program selectors of Hylton et al. in the combination of Hylton et al. and Hamlin to include a decoder which activates a tuner/demodulator to retrieve a desired signal in response to a user control signal such as that taught by Eyer et al. in order to provide a system for

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integrating programming services which are provided via one or more transmission paths (col. 2, l. 45-47).

Referring to claim 3, the combination of Hylton et al., Hamlin, and Eyer et al. teaches a broadcast signal receiving system (Hylton et al. Fig. 1) as defined in claim 2, wherein one or more of the display devices 100 is provided with a selection signal transmitting means 29, 101, 102 (antenna, Transport Interface Module (TIM), and Digital Entertainment Terminal (DET)) for transmitting a selection signal for selecting a desired one of the high-frequency signals 5 (Hylton et al. col. 8, l. 18-22) of different broadcast signaling systems and the retransmission device 10 is provided with a selection signal receiving means 19, 21, 27 for receiving the selection signal, and demodulating/converting the selection signal into switching signals for the signal selecting means (Hylton et al. col. 8, l. 22-30, 38-59).

Referring to claims 4 and 15, Hylton et al. discloses a broadcast signal receiving system (Fig. 1), wherein the selection signal transmitting means 29, 101, 102 is provided with an infrared-receiving portion 145 for receiving a selection signal from an infrared remote control transmitter 85 (col. 16, l. 54-58)(Figs. 1, 4) and a radio-transmitting portion 212 for transmitting in the form of radio waves the selection signal from the infrared-receiving portion 145 (col. 19, l. 35-50)(Figs. 1, 4), and the selection signal receiving means 19, 21, 27 is provided with a receiver 21, 27 for receiving the selection signal transmitted from the radio-transmitting portion (col. 19, l. 51-65)(Figs. 1, 4).

Referring to claim 10, the combination of Hylton et al., Hamlin, and Eyer et al. teaches the retransmission apparatus as defined in claim 8, wherein the converter section adds respective identifier headers to the selected receiver section outputs (Hylton et al. col. 6, l. 15-17).

Referring to claim **17**, the combination of Hylton et al., Hamlin, and Eyer et al. teaches the retransmission apparatus as defined in claim 8, wherein the transmitter section comprises a wireless transmitter for transmitting the common signaling system signals to different rooms of a residence (Hylton et al. col. 3, l. 11-14)(Hylton et al. Fig. 1).

Referring to claim **18**, the combination of Hylton et al., Hamlin, and Eyer et al. teaches the retransmission apparatus as defined in claim 8, wherein the transmitter section comprises a wired transmitter (Hamlin col. 3, l. 9-12).

Referring to claim **20**, the combination of Hylton et al., Hamlin, and Eyer et al. teaches the retransmission apparatus as defined in claim 19, wherein the common signaling system uses spread spectrum (Hylton et al. col. 6, l. 35-37).

9. Claim **6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Hylton et al. in view of Hamlin and further in view of Yen.

Referring to claim **6**, the combination of Hylton et al. and Hamlin teaches a broadcast signal receiving system as defined in claim 1. The combination of Hylton et al. and Hamlin fails to teach that the high-frequency signal of the common signaling system has a frequency of about 2.4 GHz or about 5.2 GHz. Yen discloses transmitting and receiving video data at a frequency of 2.4 GHz (col. 2, l. 40-49). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the combination of Hylton et al. and Hamlin to include transmitting and receiving video data at a frequency of 2.4 GHz such as that taught by Yen in order to increase the speed of video transmission. The USPTO considers the applicant's "or" language to be anticipated by any reference containing any of the corresponding elements.

10. Claim **16** is rejected under 35 U.S.C. 103(a) as being unpatentable over Eyer et al. in view of Suwa et al.

Referring to claim **16**, Eyer et al. discloses a retransmission apparatus as defined in claim 8. Eyer et al. further discloses activating a tuner/demodulator to retrieve a desired signal in response to a user control signal (col. 10, l. 16-28). Eyer et al. does not disclose a power supply switch circuit responsive to a switch signal from the signal selector for supplying power to only those receiver sections whose outputs are selected by the signal selector. Suwa et al. discloses power switches for activating or deactivating separate radio-frequency tuners in response to a user input (col. 8, l. 21-29). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify Eyer et al. to include power switches for activating or deactivating separate radio-frequency tuners in response to a user input such as that taught by Suwa et al. in order to provide improved tuning apparatus including plural tuners (col. 2, l. 4-5).

11. Claim **21** is rejected under 35 U.S.C. 103(a) as being unpatentable over Hylton et al. in view of Hamlin, further in view of Eyer et al., and still further in view of Arias et al.

Referring to claim **21**, the combination of Hylton et al., Hamlin, and Eyer et al. teaches the retransmission apparatus as defined in claim 19. The combination of Hylton et al., Hamlin, and Eyer et al. fails to teach a common signaling system using orthogonal frequency division multiplexing. Arias et al. discloses using OFDM as a channel coding method. It would have been to one of ordinary skill in the art at the time that the invention was made to modify the

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combination of Hylton et al, Hamlin, and Eyer et al. to include using OFDM as a channel coding method such as that taught by Arias et al. in order to allow for higher data transfer rates.

12. Claims **22, 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Eyer et al. in view of Hylton et al and further in view of Official Notice.

Referring to claim **22**, Eyer et al. discloses a retransmission apparatus comprising:

- a plurality of receiver sections 120, 130, 140 each of which receives a broadcast signal of a different broadcast system (Fig. 1);
- a signal selector 110 (decoder);
- a converter for converting the signals into signals of a common signaling system 110 (decoder)(col. 7, l. 24-28)(Fig. 2); and
- a transmitter section 270 for transmitting the common signaling system signals (Fig. 2).

Eyer et al. does not disclose a plurality of modulators for respectively modulating an output of a corresponding one of the receiver sections. Hylton et al. discloses a modulator 17 for modulating a transport stream into an RF channel for wireless broadcast (col. 6, l. 23-25).

Hylton et al. does not disclose a plurality of modulators for respectively modulating an output of a corresponding one of the receiver sections; however, the examiner takes Official Notice that the techniques of modulating and converting signals at different positions in a system are well known within the prior art. Furthermore, the applicant's specification admits that modulation of the signals could occur before or after the selector. Therefore, it would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify Eyer et al. to

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modulate signals before transmission such as that taught by Hylton et al., and to further modify the combination of Eyer et al. and Hylton et al. to modulate the signals prior to signal selection such as that taught by Official Notice in order to ease the processing burden of a retransmission device.

Referring to claim **23**, the combination of Eyer et al., Hylton et al., and Official Notice teaches a retransmission apparatus as defined in claim 22; and one or more display devices 100 for receiving the common signaling system signals transmitted by the retransmission apparatus and displaying content associated with the broadcast signal of one of the different broadcast systems (Hylton et al. col. 8, l. 6-10).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Van Handel whose telephone number is 571.272.5968. The examiner can normally be reached on Monday-Friday, 8:00am-5:30pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 571.272.7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Van Handel
Examiner
Art Unit 2617

MVH


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600